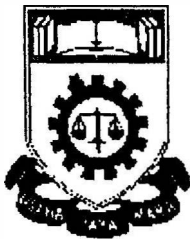


DEVELOPMENT OF SNOOPING PHONE SYSTEM

**This is presented fulfillment for the award of the
Bachelor of Electrical Engineering (Honours)
INSTITUT TEKNOLOGI MARA**



**NOR HISHAM BIN ABBAS
Faculty of Electrical Engineering
INSTITUT TEKNOLOGI MARA
40450 Shah Alam
Selangor
APRIL 1999**

AKNOWLEDGEMENT

In the name of ALLAH s.w.t, the Most Merciful, the Beneficent, the Only One. Praised be to ALLAH alone for HIS endowment that allows me to complete this thesis.

Alhamdulillah, even though a lot of obstacles had been encountered throughout realizing this thesis, with the strength from ALLAH I have tried my utmost best to complete it.

I would like to take this opportunity to express my utmost gratitude and appreciation to my project supervisor Encik Ismail Musirin for his guidance, advices and effort towards the completion of this thesis. Not to forget too are Encik Rashid and Encik Azman for valuable cooperation and contribution in allowing me to use the laboratories and equipments, Without the help and support from all of them this thesis would not be possible. All their comments, suggestions, supports and reveals of the earlier drafts certainly contribute a great help for making this thesis successful.

To my wife Puan Fadzlina Kassim, my loving daughter Fatin Nabilah, parents and friends, thank you for being cooperative, understanding and supportive for me towards the accomplishment of this thesis.

I pray to ALLAH s.w.t that may this thesis be able to be beneficial to future students. InsyALLAH.

ABSTRACT

This thesis describes the development of a snooper phone system for security purposes. This device is intended to be implemented as intrusion detection and listening device for checking home, office and etc. It may also be used to trigger other electrical devices in the premise via a switching relay or other electrical apparatus to perform the same function. Making a call to the telephone line activates the device. The caller will be able to listen to the signal generated by the intruder. For testing purposes, the output obtained is fed to a speaker via matching transformer such that any intrusion will produce audio signal. In normal use, the audio signals that were being picked up will be transmitted through the telephone line. The operating frequency range is 200 Hz up to 30 kHz. The system has been tested in the laboratory for the performance identification and discovered that this system is possible to be implemented in real world application with the incorporation of a hybrid component prior to the actual telephone line.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The detecting and listening devices in the engineering telecommunication and broadcasting engineering are not new ^[1]. Nowadays there are a lot of detecting and listening devices that has been developed. One of the examples is the telephone set, that converts the audio signal into electrical signal. The heart of the detecting system development is actually the microphone that performs this function. The listening duty is undertaken by speaker which converts the electrical signal into audio signal. Various projects and researches has been developed to convert the audio signal into electrical signal ^[1]. In broadcasting system the audio mixer is one of the device that can mix many signals into single audio signal and convert them into electrical signal ^[2]. As a comparison speech synthesizer technology is able to process the voice messages and send the natural voice into the telephone line ^[3]. Infinity transmitter has portrayed that this system has make use of decoder and encoder circuitry ^[4]. Previous work done by Ismail Musirin et, al. ^[1] was a good example of ultrasonic detection system. Audio distribution amplifier (ADA) is used to distribute the signal to other device by using the telephone line ^[5]. Telephone hybrid is the device use in the encoding/decoding process to send and receive the audio signal using standard telephone line bandwidth of 200 Hz to 3 kHz. This unit works well in both broadcasting and audio conferencing application ^[6]. The Symetrix 104 Multi-line Telephone Interface is an electronic telephone system specially designed used in broadcasting, teleconferencing and audio production facilities. It has a special feature to interface up to four telephone line to an audio mixer ^[7].